WHAT IS CLAIMED IS:

1. A circuit arrangement for transmitting and receiving radio signals, comprising:

an amplification device including an output for transmitting signals, an input for receiving signals and a supply line; and

an antenna for transmitting and receiving signals, the antenna connected to the output of the amplification device;

wherein the output of the amplification device is an input for a signal received via the antenna, wherein the amplification device is for converting the signal received via the antenna into a converted signal, and wherein the supply line is an output for the converted signal.

2. The circuit arrangement of Claim 1, wherein the amplification device includes a supercritical power amplifier in a C-E mode of operation.

3. The circuit arrangement of Claim 2, including a device coupled to the supply line for detecting and demodulating the converted signal.

4. The circuit arrangement of Claim 2, wherein the converted signal is a modulated supply current.

5. The circuit arrangement of Claim 4, including a device coupled to the supply line for detecting and demodulating the converted signal.

6. The circuit arrangement of Claim 2, wherein the converted signal is a modulated voltage drop on the supply line.

7. The circuit arrangement of Claim 6, including a device coupled to the supply line for detecting and demodulating the converted signal.

8. The circuit arrangement of Claim 1, wherein the converted signal is a modulated supply current.

9. The circuit arrangement of Claim 8, including a device coupled to the supply line for detecting and demodulating the converted signal.

10. The circuit arrangement of Claim 1, wherein the converted signal is a modulated voltage drop on the supply line.

11. The circuit arrangement of Claim 10, including a device coupled to the supply line for detecting and demodulating the converted signal.

12. The circuit arrangement of Claim 1, including a device coupled to the supply line for detecting and demodulating the converted signal.

13. The circuit arrangement of Claim 1, wherein a transmission rate associated with symbols transmitted by the amplification device is different than a reception rate associated with symbols received by the amplification device.

14. The circuit arrangement of Claim 1, provided as a transceiver of FSK-modulated data.

15. The circuit arrangement of Claim 1, wherein the amplification device is for transmitting an outgoing signal via the antenna to an object whose reflection behavior changes over time, and wherein the amplification device is further for monitoring the converted signal during said transmission of the outgoing signal to detect a change in the object over time.

16. The circuit arrangement of Claim 1, wherein the amplification device is for transmitting an outgoing signal via the antenna into a spatially limited area, and wherein the amplification device is further for monitoring the converted signal during said transmission of the outgoing signal to detect a change within the area over time.

17. The circuit arrangement of Claim 1, operable for transmitting and receiving radio signals nonsimultaneously.

18. A method for frequency conversion in an amplification device having an input for a supply current, a signal input and a signal output, comprising:

applying a first signal to the signal input of the amplification device with nondiminishing amplitude;

applying a second signal to the signal output of the amplification device; and

converting the second signal into the supply current, including operating the amplification device in a supercritical range.

19. The method of Claim 18, including monitoring the supply current over time to detect movement in a 3-dimensional area.

20. The method of Claim 18, including monitoring the supply current over time to detect a change in an object over time.